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ABSTRACT

Helen M. Walker contributed to the field of educational research and statistics during a 55-year career. Born in Iowa in 1891, Walker earned a bachelor's degree from Iowa Wesleyan College and taught high school mathematics for nine years. She then taught at the University of Kansas while doing graduate work. One source noted that she was the first woman in the United States to teach statistics. She received her Ph.D. from Teachers College, Columbia University, and also studied at the University of London. She taught statistics at Teachers College for many years, and was a full professor from 1940 to 1957. She also taught in a number of other colleges in the United States and in Mexico, Chile, and Japan. Walker was president of the American Statistical Association and a member of several other professional organizations. Notable publications include: (1) her dissertation, Studies in the History of Statistical Method (1929); (2) Mathematics Essential for Elementary Statistics (with W. N. Dorost, 1934); and (3) Statistical Inference (with J. Len, 1953). She retired from teaching in 1970 and died in 1983. (GDC)

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Helen M. Walker: Influential in 1929 and Still Cited Today

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Presented at the Annual Meeting of the American Educational Research Association

April, 1987

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Today, few students in educational research and statistics know the name of Helen M. Walker much less the contributions she made in a career that spanned over 55 years. Yet it is of this woman that E. E. Cureton has said, "...I received from her a lot of good advice in 3 or 4 short meetings, especially about the organization of scientific papers and the use of informative chapter, section, subsection, and paragraph headings, which almost force good organization by an author. Her reading of my early attempts was thorough and meticulous, and knowing my schedule her advice was terse and to the point. She never gave me any advice I didn't need" (E. E. Cureton, personal correspondence, February 6, 1987). Lee J. Cronbach also noted, "...her commitment to the growth of sound--quantitatively sound--research, her admiration of excellence in math stat (which of course had only begun to form a separate identity in the 1940's) and her personal modesty" (Cronbach, personal correspondence, January 28, 1987). In referring to a Walker publication, Glass and Hopkins (1984) encouraged readers to "see the classic article by Helen Walker [1940] for an excellent explanation of the degrees of freedom concept" (p. 337). In 1979, Teachers College honored Walker by presenting the Helen M. Walker Series on probability and statistics: a four-session series of lectures delivered by nationally distinguished scholars in the field. Churchill Eisenhart delivered the first lecture in the Walker series.

Although it seems that Walker contributed significantly to the field of educational research and statistics, little has been written about this

woman. In discussing women in higher education and historical research on women in higher education, Graham (February, 1975) noted, "The theme that runs through the entire history of higher education in the United States is that higher education has been dominated by men and that the most interesting persons to be understood in its histories have been the leaders, also men... What such history ignores, of course, is that group who for most of this century made up about 40 percent or more of the undergraduate student body, occasionally as much as 18 percent of the doctorates; and generally about 20 or 25 percent of the faculties... This group, of course, was composed of women" (p. 421-422). Given the context of the times, it is not surprising then that little is known nor has been written about Helen M. Walker. What follows are some chronological facts about Walker but little about the essence of the person. It is for this essence that we continue to search.*

History/Personal Life

Dr. Helen M. Walker, one of the earliest and foremost American women statisticians/researchers, was born in Keosauqua, Iowa on December 1, 1891 at Bonneyview (the oldest frame house in Keosauqua). The only child of Judge William Walker and Estelle Bonney Walker, Walker remained in Keosauqua until her graduation from Keosauqua High School. Walker then attended Iowa Wesleyan College, a coed liberal arts college in Mount Pleasant, Iowa, from which she earned a Bachelor's Degree in 1912. In

*Anyone having information please contact the senior author.

1912, Walker returned to Keosauqua to teach high school where she remained until 1914. After leaving Keosauqua, Walker taught at Onawa (1914-1917), Ottumwa (1917-1918) and Minneapolis (1918-1921).

Walker was known by many of the leading figures in education and educational research statistics of the day. Maxine Greene, recalled Walker in her 80's as "enormously alive and sprightly, telling me about the days of AERA when she was president, when there were only 400 members, when they had a formal dinner and the ladies [including her] wore long dresses (Greene, personal correspondence, December 15, 1987). E. E. Cureton in speaking about the person, Helen Walker, stated, "Yet despite having seen her only 8 or 10 times, none of them for more than a few minutes, I always counted her a friend--she was that kind of person" (Cureton, personal correspondence, February 6, 1987). A former male student recalled that she was always very neat and correct in her appearance.

Walker, on a personal level, maintained contact with the town of Keosauqua throughout her life. Although she never married, Walker did adopt a daughter with whom she lived in the latter years of her life prior to her death on January 15, 1983. Walker was interred in Oak Lawn Cemetery, Keosauqua, Iowa.

Post Graduate Scholastic History

In 1922 Walker began post graduate work at the University of Kansas. While at Kansas (1922-1923) she also taught mathematics(?) or statistics(?). (We do not have conclusive evidence to what she did

teach). One secondary source noted that "she was the first woman in the country to teach statistics starting at the University of Kansas". Another source, Who's Who of American Women, noted that Walker received her M.A. from Columbia in 1922. Conversely, still another source related that Walker often joked about the fact that she never received a Masters Degree.

Following her work at Kansas, Walker moved to New York where she studied at Teachers College, Columbia University. In 1929, she received her Ph.D. from Teachers College where she remained for many years. In 1936, she went to study at the University of London. One correspondent alluded to the fact that she had studied with both Karl Pearson and R. A. Fisher.

Professional Life

As mentioned previously, Walker began her professional life teaching high school mathematics. While doing postgraduate work at Teachers College, Walker also taught statistics. Following completion of her doctoral work, Walker remained at Teachers College. During her tenure at Teachers College she was successively an assistant professor and associate professor. From 1940-1957, she was a full professor.

At Teachers College, in addition to teaching statistics, Walker had extensive student advisement responsibilities. Walker was primarily concerned with graduate students, particularly candidates for doctoral degrees. Former students reported Walker to be an outstanding teacher who was very concerned about the student's learning. One former student

remembered that Dr. Walker invited groups of students to her home. B. Othenl Smith, who had a course under Walker in the 1930's, "considered her to be the best among my teachers at T.C." (personal correspondence, January 1, 1987). In addition to her work with students, Walker was a general statistical resource for all the faculty at Teachers College.

While the majority of her teaching career was at Teachers College, Walker also taught at other colleges and universities for varying periods of time. Among these were Claremont Graduate School, spring, 1947, and University of California at Los Angeles, summers 1927, 1947, and 1957. She also served as a consultant to the Columbia Project Mexico City in 1955.

In 1957, Walker was made Professor Emeritus at Teachers College. Walker left Teachers College but did not leave teaching. In 1958 and 1959 she was a Fulbright Grantee to the University of Chile, to the Japan International Christian University and to the Tokyo University. Next, in 1961, she taught at the University of Illinois. Walker "retired" to Claremont, California but taught part-time at Pitzer College in 1966-67. Finally Walker taught statistics in the Department of Psychology at Claremont Graduate School from 1967 to 1970. In 1970, Walker retired completely from teaching.

Throughout her academic career, Walker was very active in professional organizations. In 1944, she served as the first woman president of the American Statistical Association. Walker also served on the Board of Directors of that organization from 1945-48 as well as on the membership

committee of fellows from 1952-57. Walker was also active in the American Educational Research Association serving as secretary-treasurer from 1940-43, (second woman) president in 1949, and member of the executive committee from 1948-50. Walker was also a member of the American Mathematical Association, National Education Association, American Association for the Advancement of Science, History of Science Society, American Association of College Teachers of Education, and the Foreign Policy Association.

In addition to the many organizations to which she gave her time, Walker also published extensively in her field. One of her earliest publications was her dissertation, Studies in the History of Statistical Method, which appeared in book form in 1929. This was one of the first and most extensive treatises on the subject and is still referenced. Other notable publications included two frequently cited books: Mathematics Essential for Elementary Statistics, which Walker first co-authored with Walter N. Durost in 1934 and Statistical Inference with Joseph Len in 1953 (included perhaps the earliest popularization of the Johnson Neyman technique).

Outside Activities

Coupled with her many professional activities, Walker was also very active in her community. While studying at Kansas, Walker became active in the YWCA, serving as a member of the cabinet and president in the local YWCA. From 1936-49, Walker served on the national board serving as chairman of the committee on data and trends. She was also active at the

local level, both participating in and chairing the committee on management, Harlem branch, New York City.

In addition to her YWCA activities, Walker was a member of Pi Lambda Theta serving as president from 1941-45 and member of the national board from 1939-49. Other affilications included Kappa Delta Pi, Sigma Xi, and Alpha Xi Delta. Walker was a member of Riverside Church in New York City, the PEO sisterhood, and van Buren County Historical Society.

Implications

The history of a profession is the umbrella that encompasses the threads of its beginnings, its successes and its failures, its stagnation and its growth. Educational research as a profession, unlike psychology, has placed little emphasis on its history or the people who were responsible for its achievements. One way to study the history of educational research is through biographies of its principal players. Helen Walker was a principal player at a time when women were not principal players in the field of education much less in educational research. By looking at her life and the lives of others, students in educational research and statistics can get a sense of the professional underpinnings, what problems may have been encountered, what factors and people influenced the discipline as we know it today.

Walker herself recognized the need for researching the history of the discipline. In 1929, she wrote one of the first surveys of the history of statistical method. As Walker noted in that work, "...such a survey may be of use to students in various ways. It will furnish a historical

perspective which will enable them to better understand and evaluate the present statistical practices and techniques employed in professional education" (p. 1).

In writing her survey, Walker had conferences with some of the leading figures of the day. Among these were James McKeen Cottell, Turman L. Kelley, E. L. Thorndike, Williams A. McCall and Harold Rugg. Walker also corresponded with Karl Pearson, Carl Spearman, L. L. Thurston, Lewis Terman, and Godfrey Thomson to name a few. During her lifetime Walker was acquainted with or corresponded with others such as Harold Hotelling and Churchill Eisenhart. Helen Walker provides a link with some of the earliest authorities in our profession as well as those who currently hold those positions. It would be a terrible loss if we were to lose this link. Without written history, we are certain to do so. We need to record oral history while the opportunities and links to the past are available. Walker is but one example—how many others will we ignore and thus lose forever the vital information they possess.

Partial List of Sources of Information:

Correspondence with:

Former students

Former colleagues

Friends

Family

Chamber of Commerce, Keosauqua, Ia.

Alumni Office, Iowa Wesleyan College, Mount Pleasant, Ia.

Library, Teachers College, Columbia University

Claremont Graduate School, Claremont, California

American Statistical Association

American educational Research Association

YWCA

Furniss, W. Todd and Graham, P. A. editors. (1974). Women in higher education. Washington, D.C.: American Council on Education.

Graham, P. A. (February, 1973). So much to do: Guides for historical research on women in higher education. Teachers College Record, 76, 3, pp. 421-429.

Graham, P. A. (Summer, 1978). Expansion and exclusion: A history of women in American higher education. Women in Higher Education, pp. 759-773.

Walker, H. M. (1928). A note on the correlation of averages. Journal of Educational Psychology, 19, 636-642.

Walker, H. M. (1929). Studies in the history of statistical method. Baltimore: Williams and Wilkins.

Walker, H. M. (1940). Degrees of freedom. Journal of Educational Psychology. 31:253-69.

Walker, H. M. (1934, 1951). Mathematics essential for elementary statistics. New York: Henry Holt and Co.

Walker, H. M., & Durost, Walter N. (1936). Statistical tables: Their structure and Use. New York: Teachers College, Columbia University.

Walker, H. M., & Lev, Joseph. (1953). Statistical inference. New York: Holt, Rinehart and Winston.

Walker, H. M., & Lev, Joseph. (1958). Elementary statistical methods. New York: Holt and Company.